logical perfection of a consistent set of theories. He constructs the electromagnetic theory of light and must needs adhere to it on many occasions, yet with full knowledge that it can not be correct. He rejoices in the existence of the universal constant, h, and the appearance of the quantum, $h\nu$, in resonance and ionization potentials, in photoelectric X-ray phenomena, and in the theory of heat radiation, yet he can not be reconciled to the existence of the quantum in the phenomenon of the passage of light through a vacuum. He builds an atomic structure which will not only provide a clear picture, but will also furnish quantitative results in striking agreement with experiment; and yet he must, in his building, reject certain principles which elsewhere he adopts without hesitancy. He rejoices in the achievement of the general theory of relativity, which, unless proved untenable, gives a logical consistency at present—and probably for many, many years, unattainable by other means; yet in his constructive thinking he sometimes uses the ether which the general theory of relativity ignores, and he lives in his old Euclidean world which the present developments from this theory deny.

In short, the physicist can not be consistent. Moreover, he can not progress unless this inconsistency is a stimulus and not an annoyance. He must live as if in several compartments, enjoying in each one the consistency possible therein, and being not distressed but rather interested and invigorated by the failure to unite these compartments into one consistent whole. If he "believes," he must be inconsistent. If he progresses, he must adopt a set of dogmas in the small compartment in his immediate problem. If he follows with full sympathy modern progress in physics, he must have not one, but many dogmas, and these not wholly consistent with one another.

I refer not merely to the multiple-theory method of attack upon a problem, for the dogmas are not even altogether similar in kind, but more especially to the ability to appreciate thoroughly not only "constructive theories," but also "theories of principle" (quoting from Einstein) It is not merely the approach from a different viewpoint in the same universe, but it is the ability to live in more than one universe.

All of this may be obvious, but yet, in point of fact, now and again there appears evidence that even physicists of note are pained by this rôle. They seem to resist by objections which do not aid in the extension of these compartments, or by a rebellion against the obviously advantageous policy of polydogmata.

G. W. Stewart
State University of Iowa

TOTEM POLES FOR MUSEUMS

Fifty years ago some of the best totem poles of the Haida Indians of Queen Charlotte Islands cost the Indians several thousand dollars each. To-day many of these may be purchased for a dollar and a half or two dollars a foot. That is, an average totem pole can be purchased, crated and put aboard a steamer at Masset for about one hundred dollars.

Many of the Haida totem poles have disappeared. A few have been taken to museums where they are preserved; some have been burned; many have decayed. Several, seen during the past summer, at Yan opposite Masset, have recently been blown over by the wind. In a few years all will have disappeared unless means are taken to save specimens of this art for the future. However the other tribes having totem poles may feel at this date, the Haidas have come to the point of neglecting the poles and being willing to sell them. They are owned by families, and negotiations as with an estate are necessary for properly obtaining them.

This North Pacific art is one of the treasures of Canada and the United States. Examples of it should be preserved in each large city of the continent. It may not be generally known how easily this can be done.

In the summer the Haidas of Masset are busy fishing. In the spring they have less to do and some are in need of money. Mr. Alfred Adams or Mr. Henry Edensaw are trust-

worthy Haidas of Masset, B. C., who are capable of corresponding and executing the purchase of a pole or poles, and of engaging other help and superintending the lowering and creating of poles, their transportation across the inlet from Yan to the wharf at Masset and their shipment to destination. The poles are very heavy and the cost of handling will be perhaps equal to the price of the poles. They are soft and their own weight will crush parts of the carvings unless they are properly crated. Some of the poles 50 to 60 feet in length may have to be cut in sections for shipment.

Here is an opportunity. Examples of this unique art now going to decay may be rescued, loaded and started on their way to safe-keeping in our museums at the rate of about one hundred dollars per specimen.

HARLAN I. SMITH

GEOLOGICAL SURVEY,
OTTAWA, CANADA

TO KILL CATS FOR LABORATORY USE

A QUICK and humane method of killing a cat or other small mammal in the laboratory is to put the animal under an open topped bell jar, *i. e.*, a bell jar which has a small bottle-like neck at the top through which there is an opening. This mouth should be comparatively small, not over a half inch in diameter, and the neck should be at least an inch long. After the animal has been placed under the bell jar, a very small quantity of ether or chloroform is poured through the opening in the top, and it is then corked up. The liquid strikes the sides of the neck and immediately runs down in a thin film over the inner surface of the bell jar and evaporates into the chamber in two or three seconds. The enclosed animal shows its effects almost immediately, and dies in a very short time.

While it is not necessary, it is better to seal up the base of the bell jar because occasionally the animal falls down after it becomes unconscious, and its head comes in close proximity to the crack between the jar and the object on which it is placed, and it thus obtains sufficient air to delay its death. This can be prevented by wrapping a damp towel around the base so as to exclude the air. By placing the bell jar on a glass plate and sealing with vaseline, an airtight chamber can be made, but the advantage thus gained does not make up for the care necessary in order to avoid getting one's clothing in contact with the greased surfaces.

HORACE GUNTHORP

WASHBURN COLLEGE,
TOPEKA, KANS.

ANTS AND SCIENTISTS

TO THE EDITOR OF SCIENCE: As a result of watching a colony of ants and attending a scientific meeting on the afternoon and evening of the same day, it seemed to me the two teeming hordes of excited workers—the insects and the scientists—had some queer traits in common, as:

1. How they work in ranks and cohorts, mutually attracted by some exciting discovery that a wandering member has stumbled upon, and that awakens the most astounding and intense interest.

2. How they immediately set to work to pull opposite ways, fight valiantly over their treasure, and heroically keep it up after they have amputated some of each others' legs and other appendages.

3. How they take up one thing, drag it about for a time, and then drop it for some other thing.

4. How they often expend enormous labor on something that isn't worth a darn; and here Mark Twain's story of the two ants and the grasshopper leg came to mind.

5. How their splendid industry is generally circular in direction; so that after long struggle, they get the thing back to the exact spot from which it started.

6. How they firmly believe that "they are the people" and refuse to admit or bother over bigger intelligences that are their interested observers and that can and sometimes do sweep them and their hills and runways and stores into oblivion.

7. How, measured by final results, they are nevertheless a wonderful body of workers;